

WHAT IS CLAIMED IS:

SUBA&gt;

1. A kit for creating and implanting a dental implant at an edentulous site in a jaw of a patient, comprising:
  - an endosseous implant body having a top surface, a receptacle of said implant body extending downwardly from said top surface, a sidewall of said receptacle having screw threads, at least one noncircular receiving surface also formed in said sidewall;
  - a first, screw-threaded abutment having a head and a stem extending downwardly from said head, screw threads formed on said stem to mate with said screw threads of said receptacle in said endosseous implant body; and
  - a second, press-fit abutment base having a head and a stem extending downwardly from said head, said stem receivable in said receptacle of said implant body, at least one noncircular locking surface formed on said stem to mate with said at least one noncircular receiving surface on said sidewall of said receptacle, such that when said press-fit abutment base is press-fit into said receptacle of said implant body, said press-fit abutment base will not be able to rotate in respect of said implant body.

1                   2.     The kit of Claim 1, wherein a plurality of noncircular receiving  
2 surfaces are formed in said sidewall of said receptacle of said implant body, a like  
3 plurality of noncircular locking surfaces formed on said stem of said press-fit  
4 abutment base to mate with respective ones of said plurality of noncircular  
5 receiving surfaces.

1                   3.     The kit of Claim 2, wherein said noncircular receiving surfaces and  
2 said noncircular locking surfaces are corners and faces of polyhedra, respectively.

1                   4.     The kit of Claim 3, wherein said polyhedra are rectangular prisms.

1                   5.     The kit of Claim 3, wherein said polyhedra are trapezoidal prisms,  
2 a cross-section of said prisms having parallel sides of unequal length.

1                   6.     The kit of Claim 1, wherein said stem of said screw-threaded  
2 abutment base has an end, a nonthreaded section formed adjacent said end.

1                   7.     The kit of Claim 6, wherein said nonthreaded section is tapered to  
2 assist in leading in said screw-threaded abutment base into said receptacle of said  
3 endosseous implant body.

1           8.     The kit of Claim 1, and further comprising an endosseous implant  
2     body replica, a receptacle of said replica having at least one noncircular receiving  
3     surface which is substantially identical to said at least one noncircular receiving  
4     surface of said receptacle of said endosseous implant body.

1           9.     The kit of Claim 8, wherein said implant body replica has an  
2     exterior surface of the same general size and shape as an exterior surface of said  
3     endosseous implant body.

1           10.    The kit of Claim 1, and further comprising a bone healing cap for  
2     affixation to said top surface of said endosseous implant body to allow the bone to  
3     heal around said implant body at said site.

1           11.    The kit of Claim 1, and further comprising a gum healing cap for  
2     affixation to said top surface of said endosseous implant body to allow the gum of  
3     the patient to heal around said implant body at said site while still permitting  
4     access to the top surface of said implant body thereafter.

5           12.    The kit of Claim 1, and further comprising an impression  
6 pick-up, means for affixing said impression pick-up to said press-fit abutment  
7 base, said impression pick-up configured such that once an impression of at least  
8 the site in the patient's mouth is made, the impression will pull the impression  
9 pick-up with the impression upon removal of the impression from the patient's  
10 mouth, said impression pick-up in turn pulling said press-fit abutment base such  
11 that said impression, said impression pick-up and said press-fit abutment base are  
12 removed from the patient's mouth as a unit.

1           13.    The kit of Claim 12, wherein said press-fit abutment base has a top  
2 surface, said means for affixing said impression pick-up to said press-fit base  
3 comprising a screw-threaded receptacle in said top surface of said press-fit  
4 abutment base, and a threaded stem of said impression pick-up adaptable to be  
5 threadedly received by said receptacle in said press-fit abutment base.

1           14.    The kit of Claim 12, wherein said impression pick-up has a top  
2 surface, a bottom surface and at least one side surface extending between said top  
3 surface and said bottom surface, an indentation formed in said at least one side  
4 surface adaptable to engage material of said impression such that said impression  
5 pick-up will adhere to the impression.

1           15.    An endosseous dental implant body, comprising:  
2                   a top and a bottom, at least one exterior sidewall extending from  
3           said top to said bottom;  
4                   a receptacle formed from said top downwardly toward said bottom,  
5           an interior sidewall of said receptacle having screw threads adapted to receive a  
6           screw-threaded implant abutment base; and  
7                   at least one noncircular receiving surface formed in said internal  
8           sidewall adapted to receive a corresponding noncircular locking surface formed on  
9           a stem of a press-fit implant abutment base.

1           16.    The dental implant body of Claim 15, wherein a plurality of  
2           noncircular receiving surfaces are formed in said interior sidewall and are adapted  
3           to mate with respective ones of a like plurality of locking surfaces formed on the  
4           stem of the press-fit implant abutment base.

1           17.    The dental implant body of Claim 16, wherein said receiving  
2           surfaces are corners of a polyhedron.

1           18.    The dental implant body of Claim 17, wherein said polyhedron is a  
2           rectangular prism.

Sub 112

19. The dental implant body of Claim 17, wherein said polyhedron is a trapezoidal prism, an orthogonal cross-section of said prism being a trapezoid having parallel sides of unequal length.

20. A press-fit dental implant abutment, comprising:  
a body having a top surface and a bottom surface, at least one sidewall extending between said top surface and said bottom surface; and  
a stem extending downwardly from said bottom surface, at least one noncircular locking surface formed on said stem adaptable to mate with a respective noncircular receiving surface formed on an internal sidewall of an endosseous implant body.

21. The press-fit implant abutment of Claim 20, wherein said locking surfaces are formed within tolerances of  $\pm 0.0001$  inch.

13 22. <sup>18</sup> The press-fit implant abutment <sup>base 16</sup> of Claim 20, and further comprising  
a plurality of noncircular locking surfaces formed on said stem, said noncircular locking surfaces adaptable to mate with respective ones of a like plurality of noncircular receiving surfaces formed on an internal sidewall of an endosseous implant body.

1 *B* ~~23~~<sup>19</sup> The press-fit implant abutment of Claim ~~22~~<sup>base 18</sup>, wherein said  
2 noncircular locking surfaces are faces of a polyhedron.

1 *B* ~~24~~<sup>20</sup> The press-fit implant abutment of Claim ~~23~~<sup>base 19</sup>, wherein said  
2 polyhedron is a rectangular prism.

1 *B* ~~25~~<sup>21</sup> The press-fit implant abutment of Claim ~~23~~<sup>base 19</sup>, wherein said  
2 polyhedron is a trapezoidal prism, a cross-section thereof defining a trapezoid  
3 having unequal parallel sides.

1 26. The press-fit implant abutment of Claim 20, wherein body and said  
2 stem comprise an abutment ~~base~~.

*Sub A3*  
1 27. The press-fit implant abutment of Claim 26, wherein said top  
2 surface has formed therein means for attaching said abutment base to an  
3 impression pick-up.

1 ~~28~~<sup>23</sup> The press-fit implant abutment base of Claim ~~27~~<sup>22</sup>, wherein said  
2 means comprises a screw-threaded receptacle adaptable to receive a stem of the  
3 impression pick-up.

1                   29. A screw-threaded dental implant abutment, comprising:  
2                   a body having a top surface and a bottom surface, at least one  
3                   sidewall extending from said top surface to said bottom surface; and  
4                   a stem extending from said bottom surface to an end, a first section  
5                   of said stem proximate said bottom surface being screw-threaded and being  
6                   adaptable to engage screw threads formed in an internal sidewall of an endosseous  
7                   implant body, a second nonthreaded section of said stem formed adjacent said end.

1                   30. The dental implant abutment of Claim 29, wherein said nonthreaded  
2                   section is tapered to assist in leading in said screw-threaded abutment base into a  
3                   receptacle of the endosseous implant body.

1                   31. A method for fabricating an endosseous implant, comprising the  
2                   steps of:  
3                   implanting an endosseous implant body at a site in a jaw of a  
4                   patient;  
5                   press-fitting an implant abutment base into the implant body such  
6                   that the implant abutment base is angularly locked in position with respect to the  
7                   implant body;  
8                   attaching an impression pickup to the implant abutment base;  
9                   forming an impression around said site and to adjoin the implant  
10                  base;



11 removing the impression, the impression pickup and the implant  
12 base together from the mouth of the patient and from the endosseous implant  
13 body;

14 press-fitting an endosseous implant body replica to the implant base;  
15 fashioning a model of the patient's mouth to adjoin the impression  
16 and to incorporate the endosseous implant body replica; and

17 using the precise translation of reference points from the patient's  
18 mouth to the model thereby obtained, fashioning a dental prosthesis on the implant  
19 base.

1 32. The method of Claim 30, further comprising the steps of:  
2 prior to said step of press-fitting the implant abutment base, affixing a gum  
3 healing cap to a top surface of the endosseous implant body to permit the gum to  
4 heal around the cap.

1 33. The method of Claim 30, further comprising the steps of:  
2 prior to said step of press-fitting the implant abutment base, affixing  
3 a bone healing cap to a top surface of the endosseous implant body to permit the  
4 bone of the patient's jaw to heal without occluding a receptacle of the implant  
5 body adaptable to receive the implant abutment base.

Add AM